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SEX AND CHARACTER.

Sex and Character. By Otto Weininger. Authorised translation from the sixth German edition. Pp. xxii+356. (London: W. Heinemann, 1906.) Price 17*s.* net.

WEININGER'S interest in his problem is much more philosophical than scientific, but he finds the basis of his theory in a biological idea, and thus challenges scientific criticism. His philosophy is of the non-empirical type, and he is strongly influenced by Plato and the transcendentalism of Kant. His psychology and ethics are thus static and non-evolutionary, and he is the less likely to find any strong support from modern thinkers; for whatever in these days may be our views as to the method by which it has come about, the *fact* of organic evolution is beyond dispute, and the application of evolutionary ideas to psychology and ethics hardly less compelling.

The book is an attempt to reduce the relation of the sexes to a single principle, and Weininger brings arguments from biology, psychology, logic, and ethics to enforce his claim to have established it. He begins by predicating a permanent bisexual condition in human beings, pointing out that the sexual condition in the embryo is derived from an earlier indeterminate stage, and that there are always traces of bisexuality in the adult, *e.g.* the down on a woman's face in the position of the beard, and the presence of glandular tissue connected with the nipples in man.

> "The fact is that males and females are like two substances combined in different proportions, but with either element never wholly missing. We find, so to speak, neither a man nor a woman, but only the male condition and the female condition. Any individual 'A' or 'B' is never to be designated merely as a man or as a woman, but by a formula showing that it is a composite of male and female character combined in different proportions, for instance as follows:—
>
> $$A=\genfrac{}{}{0pt}{}{aM}{a'W} \qquad B=\genfrac{}{}{0pt}{}{bW}{b'M}$$
>
> always remembering that each of the factors a, a', b, b' must be greater than 0 and less than unity."

Weininger elaborates this biological idea and carries it into the field of psychology and ethics. He seeks to explain the periodic movements for the emancipation of women by the periodic appearance of unusual numbers of women approaching the male standard (his so-called hermaphrodites), and supposes that all such movements die out because the hermaphrodite individuals who create the demand for emancipation after a certain time are no longer produced, an argument which he supports by biological analogies; but though there have been such movements in the past, they were doomed to failure, because it is only in our own epoch that the fear of rape, which is the *real* reason for the suppression and prohibitions accorded to women, has become so small a probability that it may be disregarded in view of the enormous gain to intellect and character afforded by the fullest possible freedom.

Weininger proceeds to inquire what are the essentials of the ideal maleness and the ideal femaleness which form the ends of his series, and on his way elaborates his theories of psychology and ethics. Memory he takes as the basis of logic and of ethics; for without memory there can be no perception of identity, and hence no possibility of a syllogism. The perception of identity necessitates the supposition of a transcendental ego which is out of time; for the ego must be permanent and the same at all times to be able to recognise identity when it turns up. James, however, has shown that for the purposes of psychology all that is necessary is the present thought which contains and remembers and recognises all past thoughts. The thought, then, *is* the thinker, and the transcendental ego a needless and cumbersome abstraction.

How does this male psychology apply to woman? Thus dogmatically Weininger:—Woman has no memory, and hence no perception of identity, hence she is illogical and non-moral. She is incapable of forming concepts; all her ideas are in the vague stage in which the object perceived is inseparable from the character or feeling with which it is perceived. That is to say, in general, her mentality is in a less differentiated or articulated stage than man's. Here again we might find some grounds for seeing a partial truth in our author's contentions, if he were content to say that, on the whole, this was true of the average woman as compared with the average man, all due allowance being made for education and logical training, but he goes very much farther than this. "Woman has no ego," and, moreover, "I must again assert that the woman of the highest standard is immeasurably below the man of lowest standard." Here common-sense observation and all anthropological, psychological, and ethical investigations give him an emphatic negative.

Woman, then, according to Weininger, is nothing (*Nichts*), the complete antithesis of man, who is something, an ego, a microcosm (*All*), though containing within him the possibility of nothingness (*Nichts*), of chaos, of insanity, of crime. What, then, is her place in humanity? "Woman is sexuality, man is sexuality and something more." Here, then, we have the secret of woman. She is nothing but the instrument of a blind instinct to perpetuate the race; all her practical interests are in sexual congress (the courtesan type), in procreation (the mother type), in match-making. "The idea of pairing is the only conception which has positive worth for women." "The female is concerned altogether with one class of recollections, those connected with the sexual impulse and reproduction."

The women of history and of daily experience clearly cannot be fitted into Weininger's conception of them; but that, he would say, is because of their extraordinary capacity for assimilating man's ideas, his morality, his ideals of chastity, of honour, and his respect for logic. When a woman accepts man's standards too thoroughly her nature (sexuality) re-

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volts, and hysterical crises result. The patient alternately passionately repudiates her sexual instincts and brazenly asserts them. It is hard to imagine how a creature without memory or logic could perform all the mental processes involved in this assimilation and repudiation.

Weininger now turns on man. Woman is nothing, and therefore non-moral, not immoral; but man in his relations with her is always immoral. For he always regards her as a means to an end, and not as an end in itself; in sexual congress as the instrument of pleasure and physical reproduction; in love as the instrument of self projection and mental reproduction; but woman is part of humanity, and must be regarded as an end in herself. The present writer, for one, fails to comprehend how a person who has no ego and is nothing can be regarded as an end in herself!

Specious and persuasive as our author shows that he can be, it is clear that he is very far from establishing his principle. The book is a remarkable one for the author's years—he was only twenty-one when he wrote it—remarkable in the learning and thought which he brings to bear no less than in the largeness of its conception and the breadth with which the matter is treated. It is brilliantly written, and contains at once profound reflections and almost laughably unfounded statements of fact. It is at times stimulating and suggestive, but, nevertheless, often irritating, because the central idea seems rather an obsession of a brilliant but inexperienced mind than a conception to which the writer has been driven by carefully considered facts.

Weininger died by his own hand in 1903, and we are told by the friend who collected his posthumous papers that he felt within him criminal tendencies, and could no longer continue the struggle between these tendencies (*Nichts*) and his intelligible ego (*All*).

L. A.

SOME RECENT LOGARITHMIC TABLES.

Tableaux logarithmiques, A et B. By Dr. A. Guillemin. Pp. 48 of explanation, with two tables 35×35 and 46×35 cm. (Paris: Félix Alcan, 1906.) Price 4 francs complete.

Clive's Mathematical Tables. Pp. 49. (London: University Tutorial Press, Ltd., 1906.) Price 1*s.* 6*d.*

Five-figure Mathematical Tables for School and Laboratory Purposes. By Dr. A. Du Pré Denning. Pp. 21. (London: Longmans, Green and Co., 1906.) Price 2*s.* net.

DR. GUILLEMIN'S two tables possess several interesting features. Taking, in the first place, Table A, which is used for working to six places of decimals, this contains the *antilogarithms*, calculated to six decimal places, of all decimals of three places from 0·000 to 0·999. In a third column are given the values of log α, corresponding to values of $\log(1+\alpha)$, from 0·000000 to 0·000999. When it is required to calculate logarithms to six places of decimals, the principle employed is as follows:—Let N be the number the logarithm of which is required, m the nearest number in the column of antilogarithms, so that $\log m = \log N$ to three places of decimals. Then if $N = m(1+\alpha)$ we have

$$\log N = \log m + \log(1+\alpha).$$

By subtraction we find $N - m$, which is equal to $m\alpha$. From the tables we can find by inspection $\log m\alpha$ to *three* decimal places, and subtracting $\log m$, which is known, we have $\log \alpha$ to three decimal places. The table then gives $\log(1+\alpha)$ to three significant figures, and these figures are the second three decimals to be written after $\log m$ in order to give $\log N$ to six places.

In the second table (Table B) the values of the antilogarithms are given to nine places of decimals, and the values of $\log \alpha$ to six places. In each table the number of entries is one thousand, the logarithms going from 0·000 to 0·999. With Table B, which measures 35 cm. by 46 cm., it is possible to calculate any logarithm to nine decimal places, but the work involves something more than a repetition of the process used for Table A. If, for example, it is required to find log 7, there is no difficulty in obtaining the first six figures 0·845098, but the remainder to be operated on in order to find the next three figures cannot be got until we have worked the whole thing backwards and calculated the antilogarithm of 0·845098 to nine decimal places.

It is not often that logarithmic calculations have to be taken to nine decimal places, but if this has to be done the present method, which is very fully explained by the author, avoids the use of cumbersome books of tables, and it will probably be found, with a little practice, not to take much longer—perhaps not even to take so long as the interpolation methods which such books of tables would necessarily involve.

The other tables under review are good examples of a number of small tables which have been issued during the last few years with the object of saving elementary students in mathematics, as well as students in physics and chemistry, from the tedious work of looking out seven-figure logarithms in the large "Chambers." It has been felt for a long time past that working with four figures is sufficient for teaching purposes; on the other hand, the student of experimental science often requires the additional accuracy obtained by an extra decimal place. But though several cheap books of four-figure tables have been issued during the past few years, we had to retain "Chambers" for teaching and examining junior students until about four months ago, as none of the other books we saw contained what was necessary. One contained natural sines and cosines, but not their logarithms; another contained natural and logarithmic sines, but no cosines.

Junior students are very fond of using natural sines when they ought to learn to use their logarithms. They invariably get inaccurate results, by clumsy methods, and it would not be a bad plan to remove the tables of natural sines from the books supplied for examinations.

The proper arrangement for a table of trigono-

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